

KIC 008191589

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008191589-01	OBS	No	0.663561	131.941100	21.6	5.973	9.5	12.6	1.95	6458	0.91	24012.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008191589-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—CENT_RESOLVED_OFFSET

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

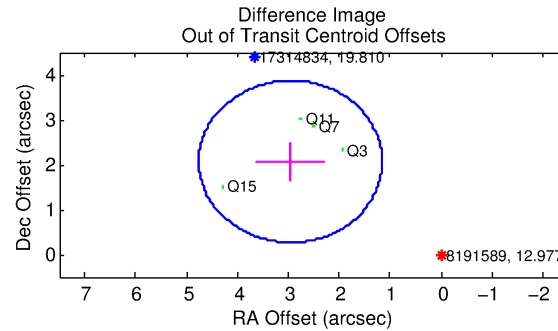
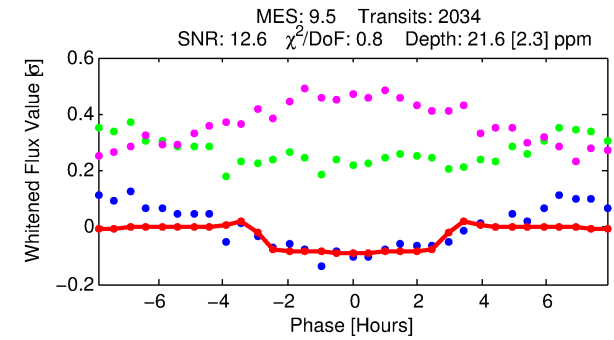
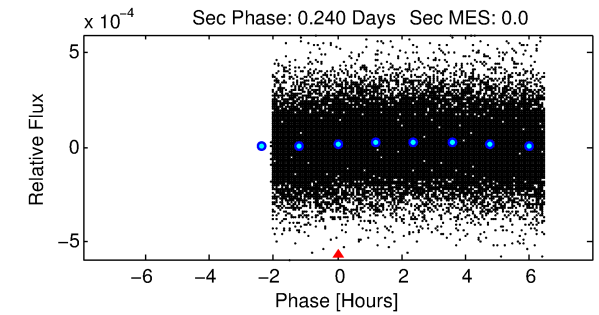
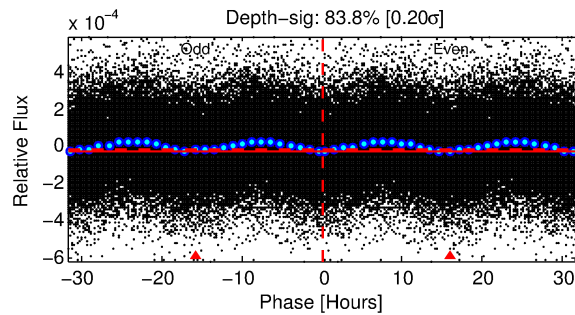
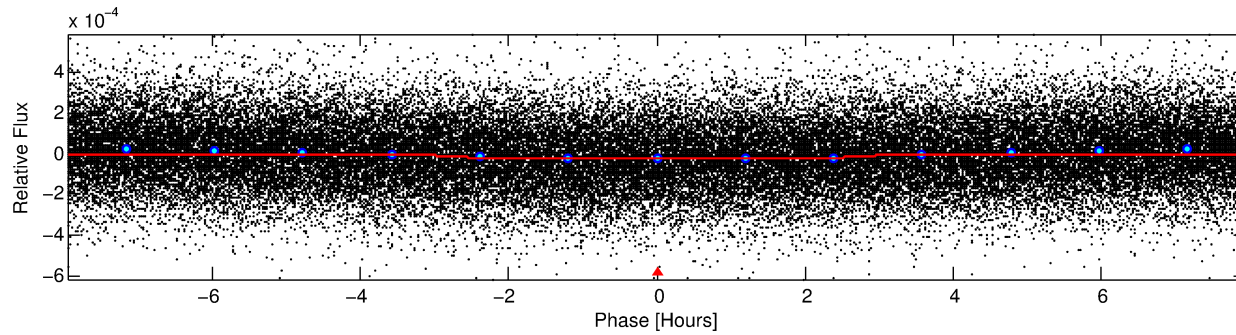
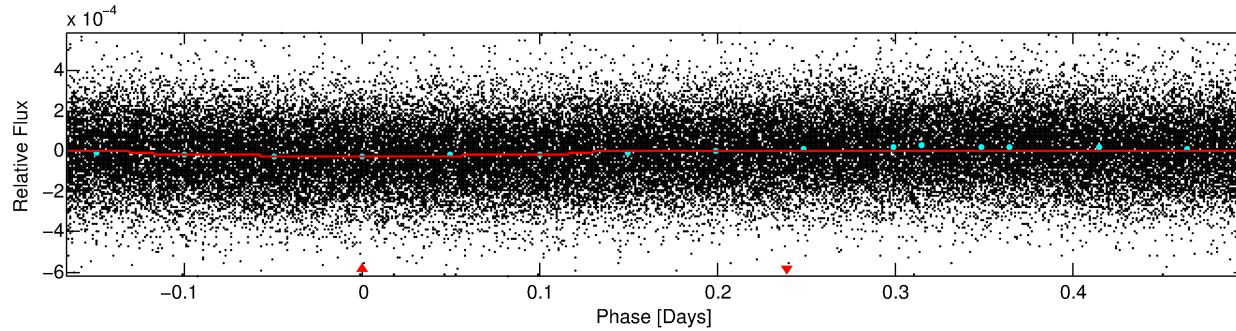
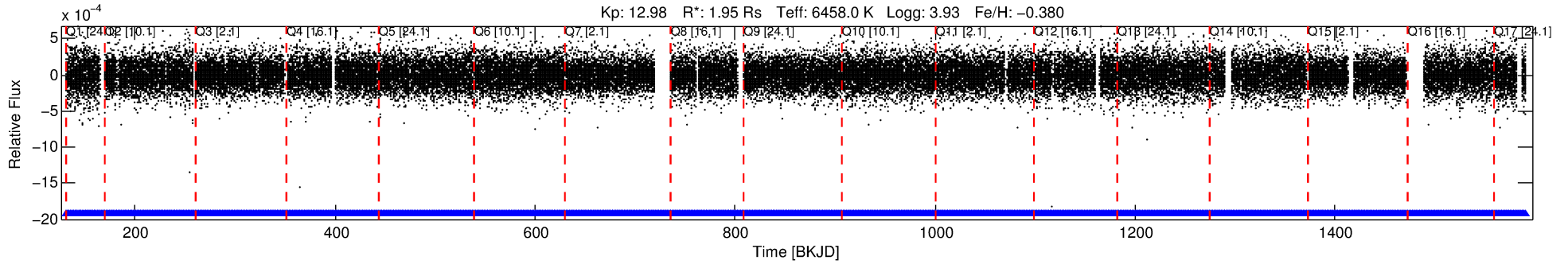
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008191589-01

No Significant Match Found

DV One-Page Summary

KIC: 8191589 Candidate: 1 of 1 Period: 0.664 d



DV Fit Results:

Period = 0.66356 [0.00001] d
Epoch = 131.9411 [0.0036] BKJD
Rp/R* = 0.0043 [0.0025]
a/R* = 1.09 [0.50]
b = 0.00 [1019.36]
Seff = 24012.18 [16983.26]
Teq = 3174 [561] K
Rp = 0.91 [0.65] Re
a = 0.0157 [0.0067] AU
Ag = N/A
Teffp = N/A

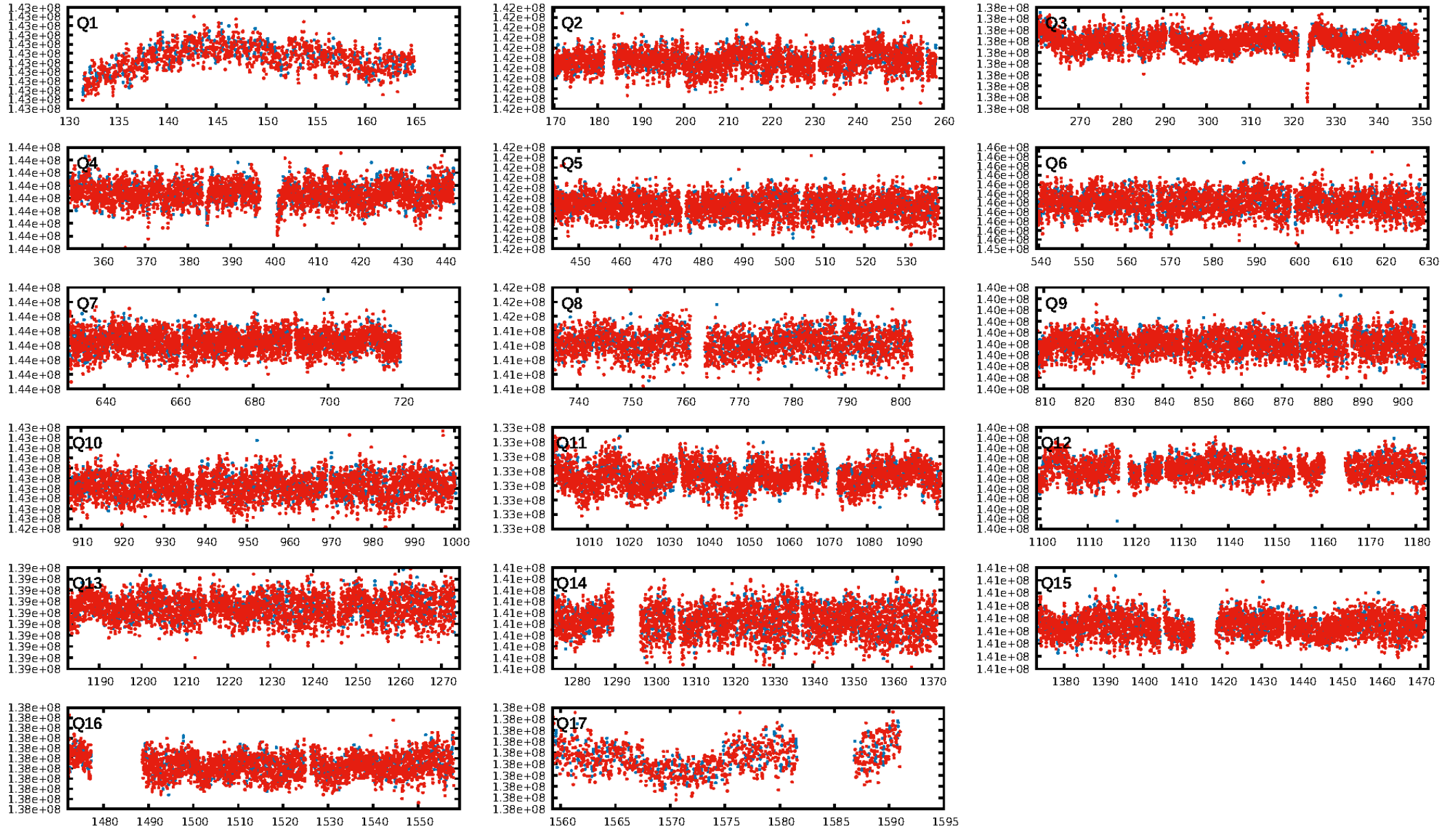
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1943/1943]
GhostDiagnostic-chr: -2.27
Centroid-sig: 0.0%
Centroid-so: 7.780 arcsec [6.93 σ]
OotOffset-rm: 3.609 arcsec [6.01 σ]
KicOffset-rm: 12.966 arcsec [12.80 σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/4 [8]
DiffImageQuality-fgm: 0.88 [7/8]
DiffImageOverlap-fno: 1.00 [17/17]

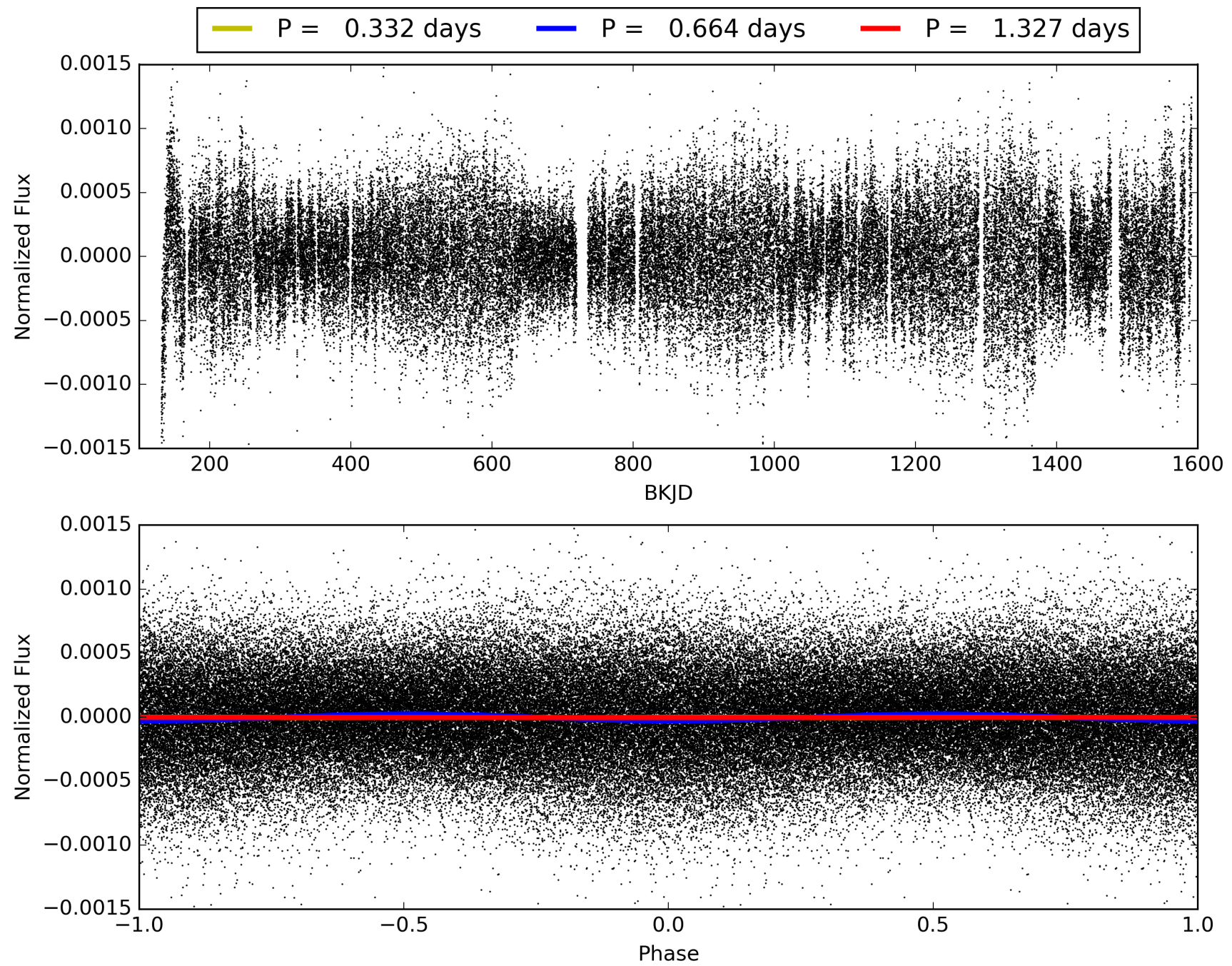
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:26:10 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008191589-01, PDC Light Curves

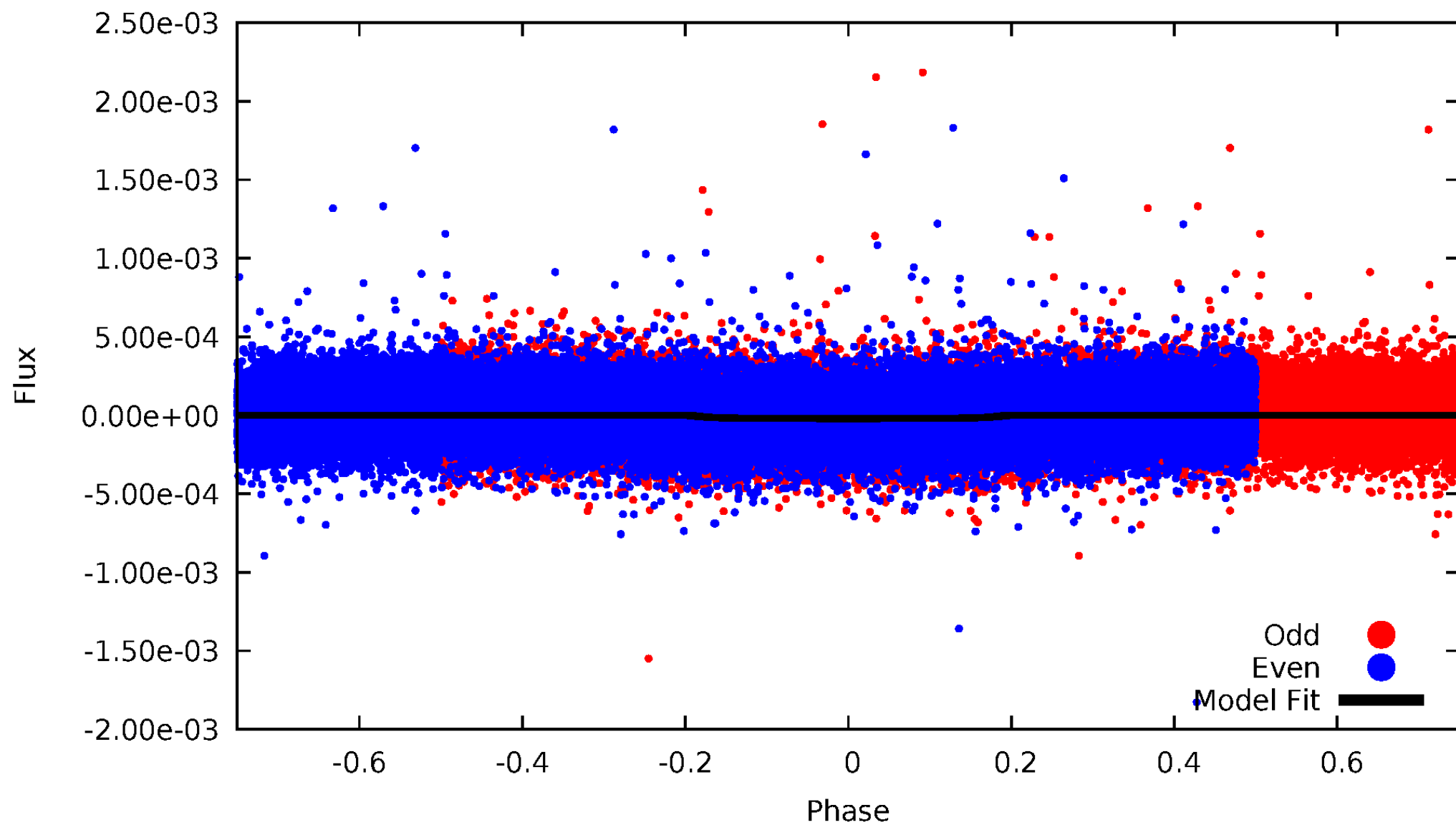


TCE 008191589-01



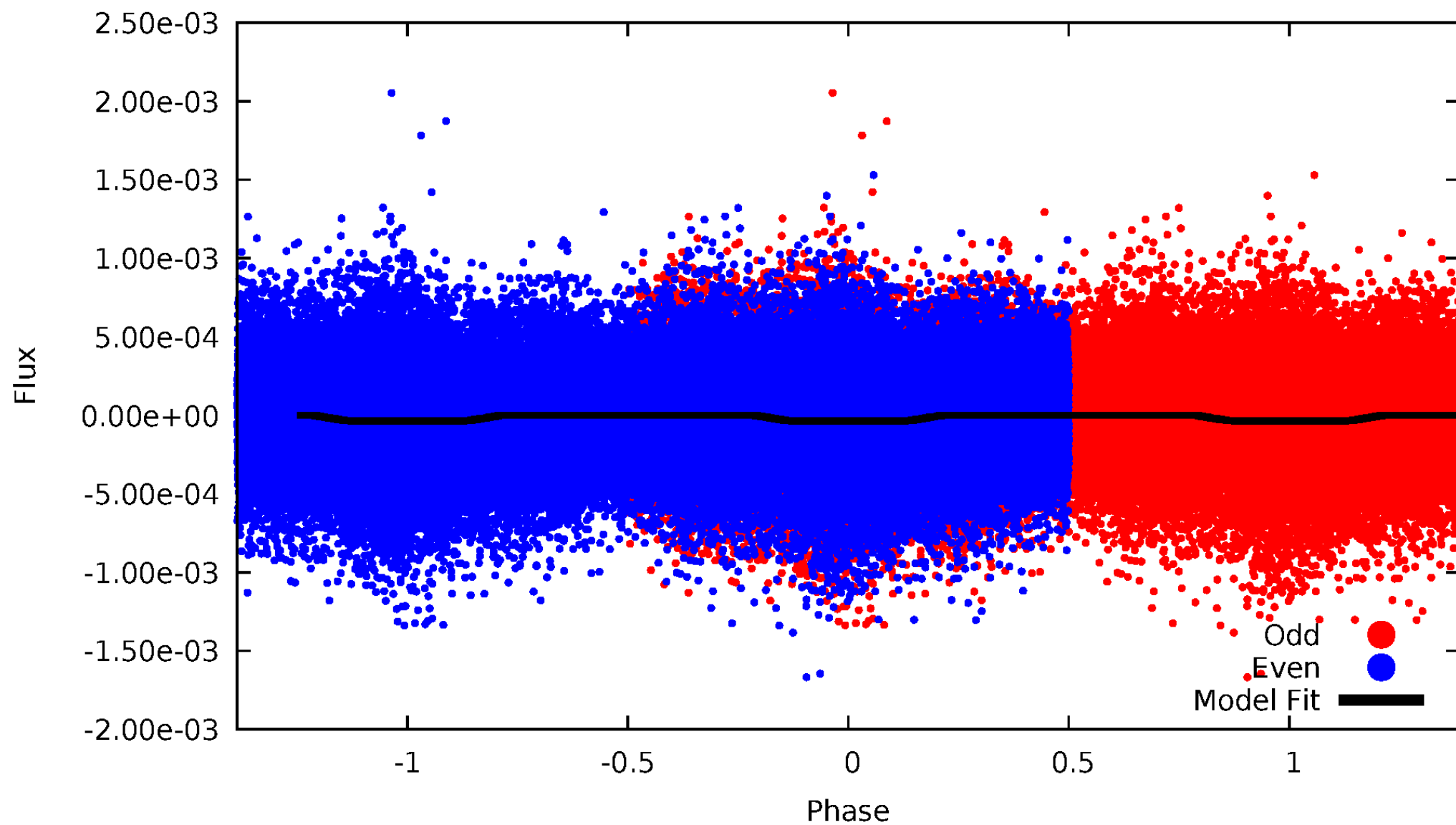
DV Odd/Even

TCE 008191589-01



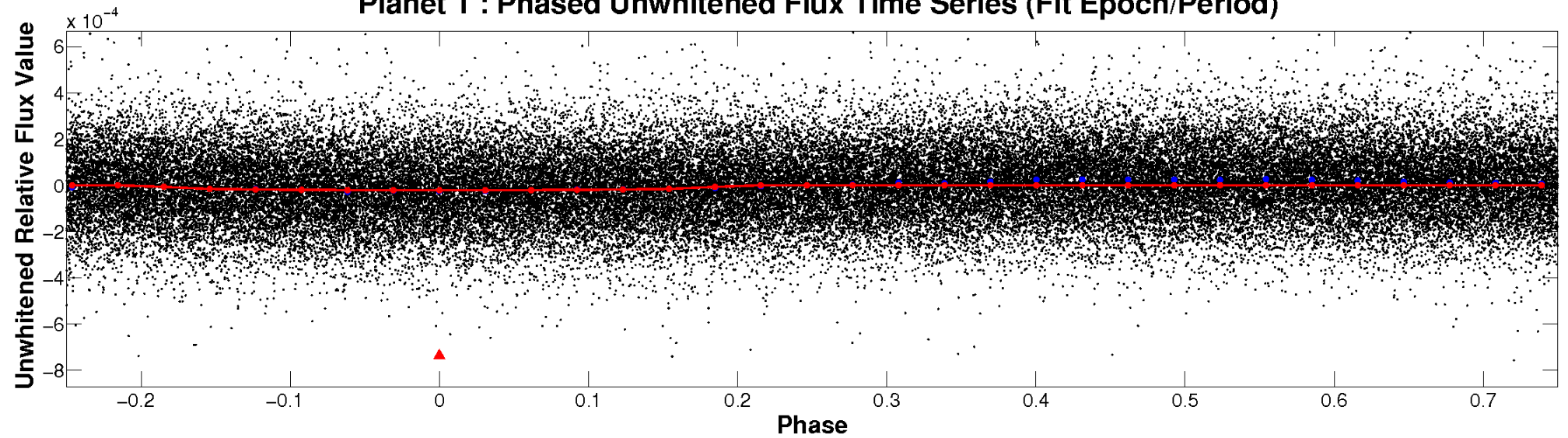
ALT Odd/Even

TCE 008191589-01

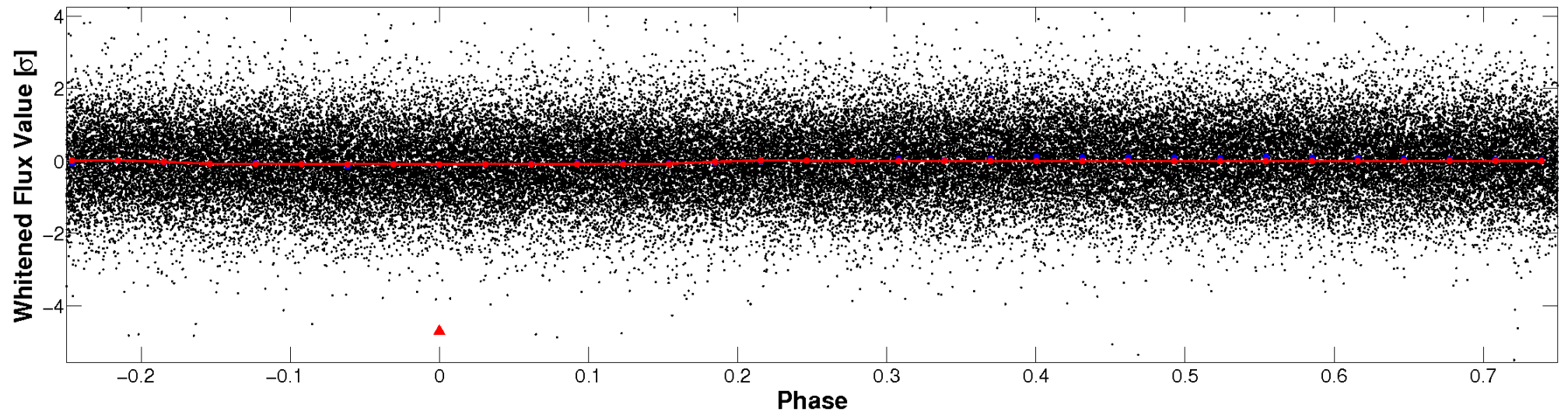


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

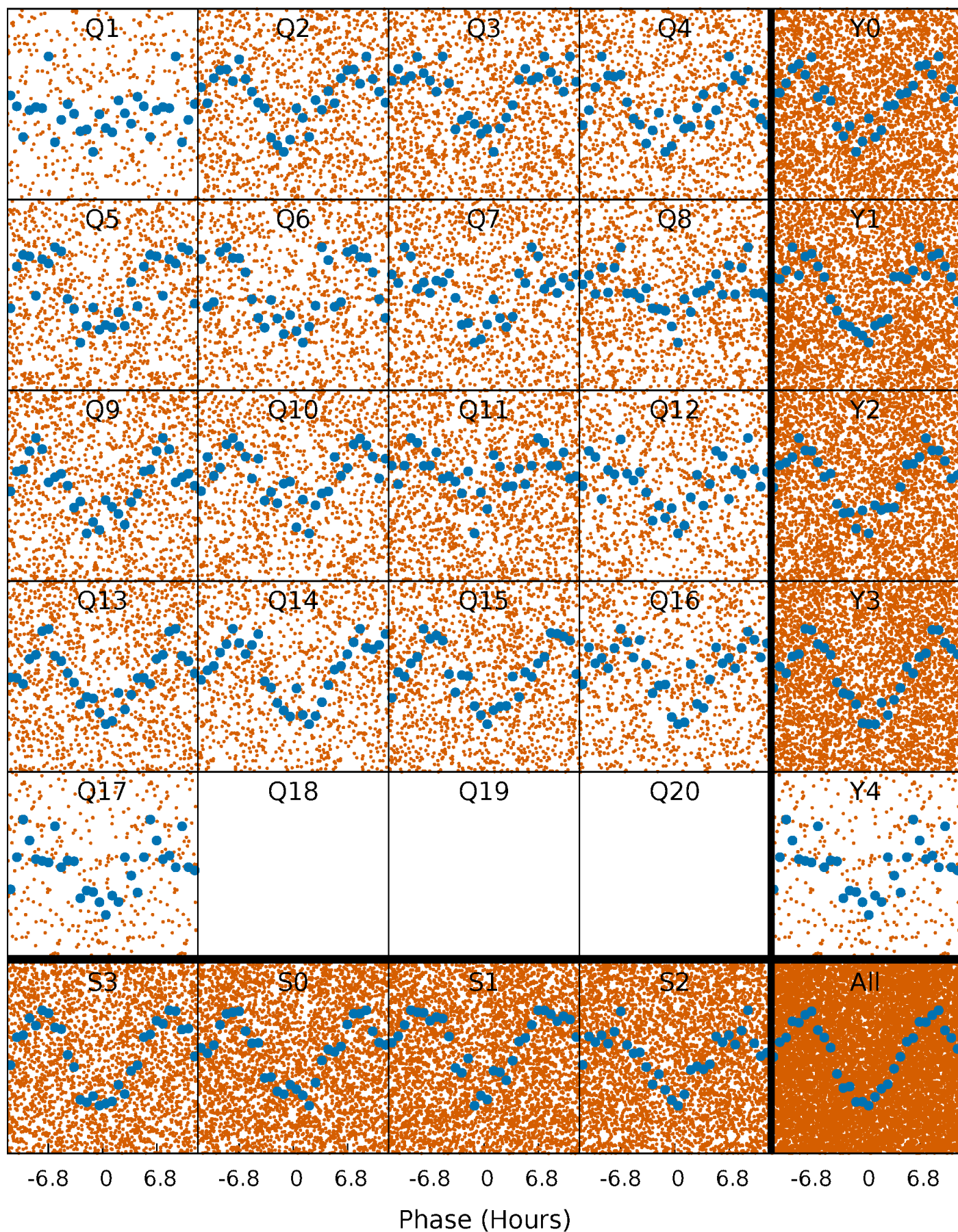


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



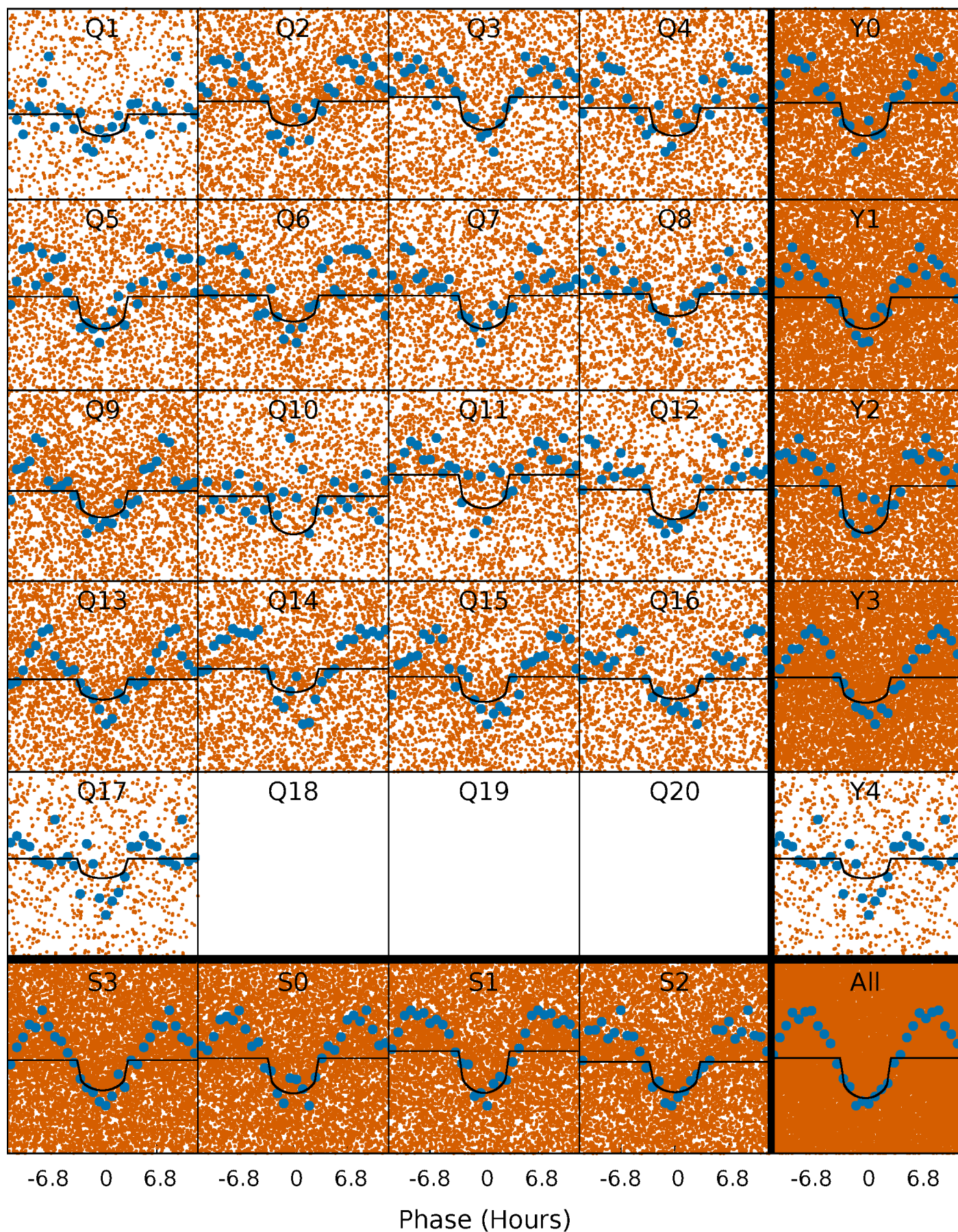
PDC Quarter-Phased Transit Curves

TCE 008191589-01 P= 0.663561 Days $T_0=131.941100$ (BKJD)



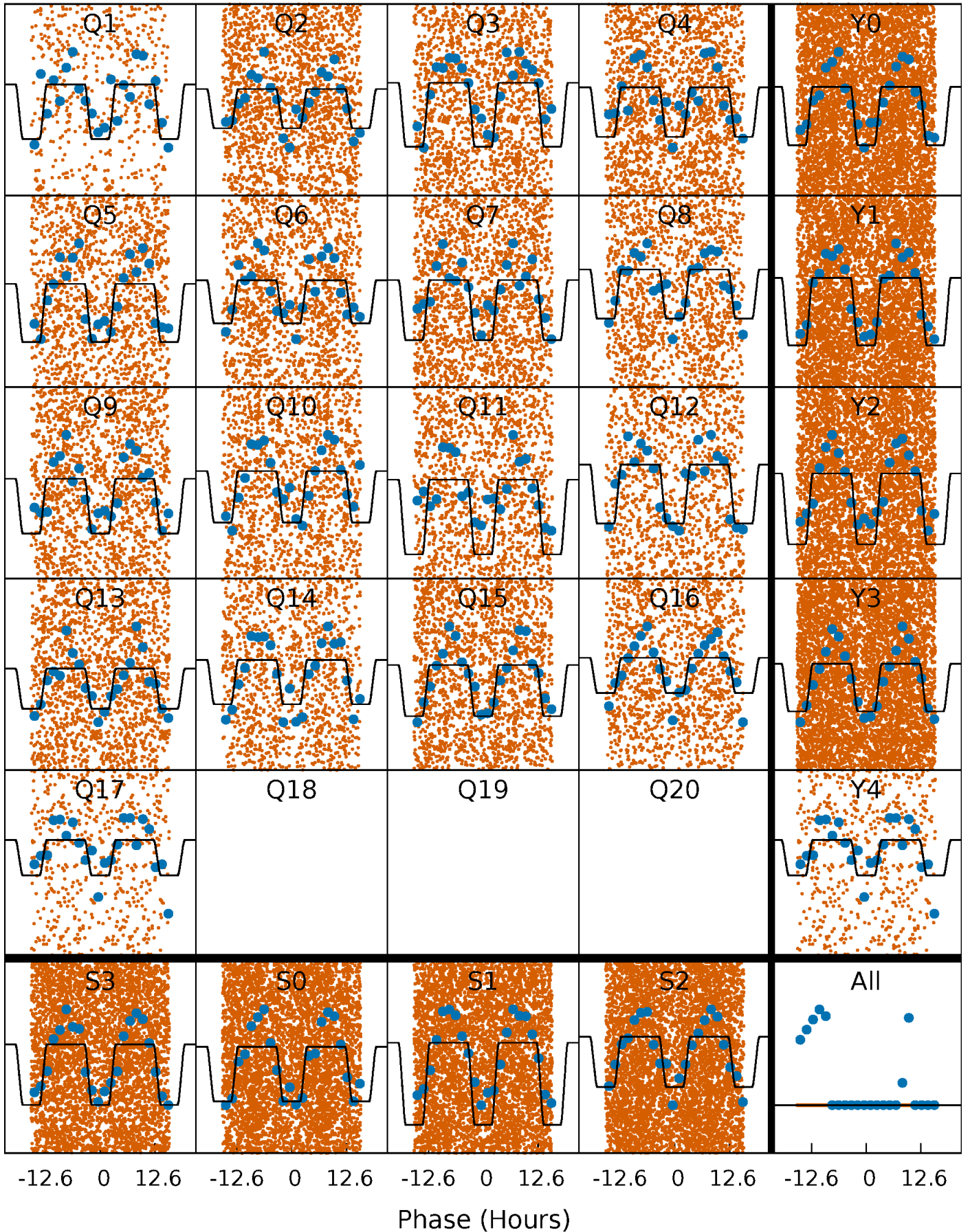
DV Quarter-Phased Transit Curves

TCE 008191589-01 P= 0.663561 Days $T_0=131.941100$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

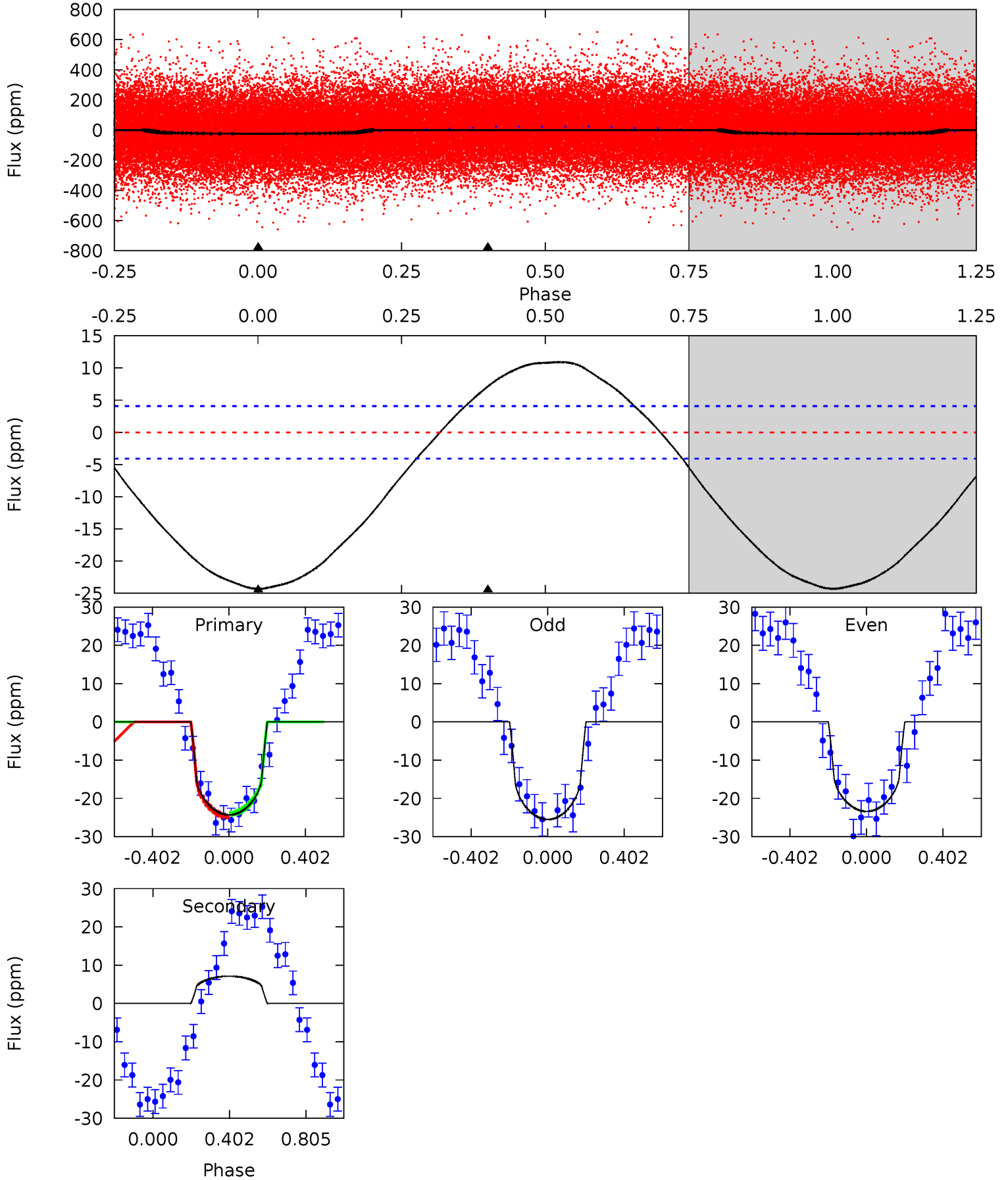
TCE 008191589-01 P= 0.663583 Days $T_0=131.915676$ (BKJD)



DV Model-Shift Uniqueness Test

008191589-01, $P = 0.663561$ Days, $E = 131.277539$ Days

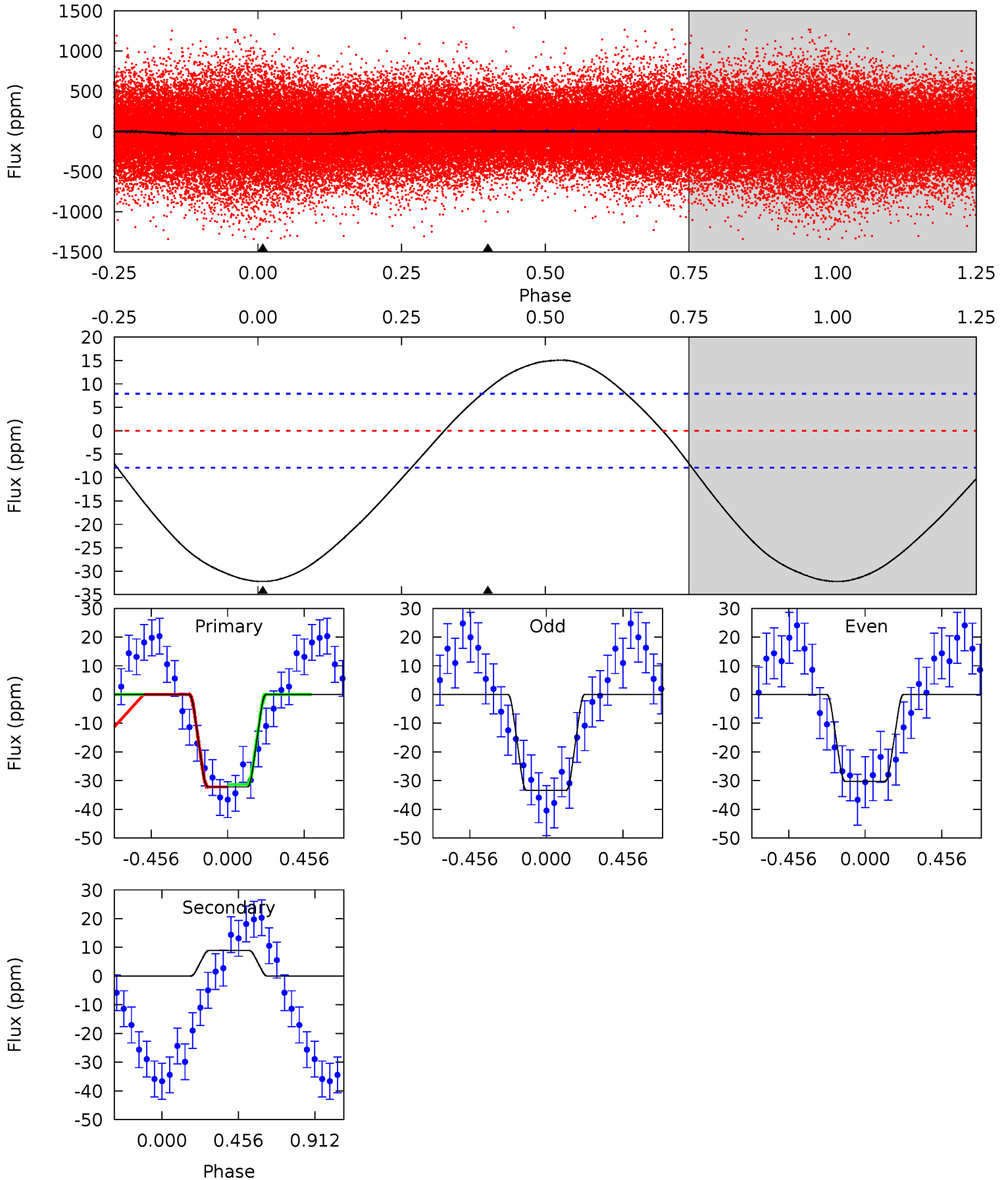
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.4	-7.44	0	0	4.26	0.84	3.05	25.4	25.4	-7.44	-7.44	1.10	1.07	0.31	0.36



Alt Model-Shift Uniqueness Test

008191589-01, P = 0.663583 Days, E = 131.252093 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	-4.77	0	0	4.24	0.75	2.22	17.2	17.2	-4.77	-4.77	0.83	1.09	0.32	0.20



Stellar Parameters For KIC 008191589

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6458^{+175}_{-214}	$3.928^{+0.413}_{-0.138}$	$-0.380^{+0.300}_{-0.300}$	$1.952^{+0.512}_{-0.832}$	$1.176^{+0.181}_{-0.221}$	$0.223^{+0.793}_{-0.088}$
	+3%/-3%	+11%/-4%	+79%/-79%	+26%/-43%	+15%/-19%	+356%/-40%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008191589-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	7 ± 1	$0.84^{+0.54}_{-0.44}$	4319^{+345}_{-470}	-5373^{+711}_{-1920}	$-1.304^{+0.793}_{-4.289}$
Alt.	9 ± 2	$1.22^{+0.55}_{-0.51}$	4350^{+345}_{-499}	-4981^{+468}_{-1012}	$-0.816^{+0.450}_{-1.616}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

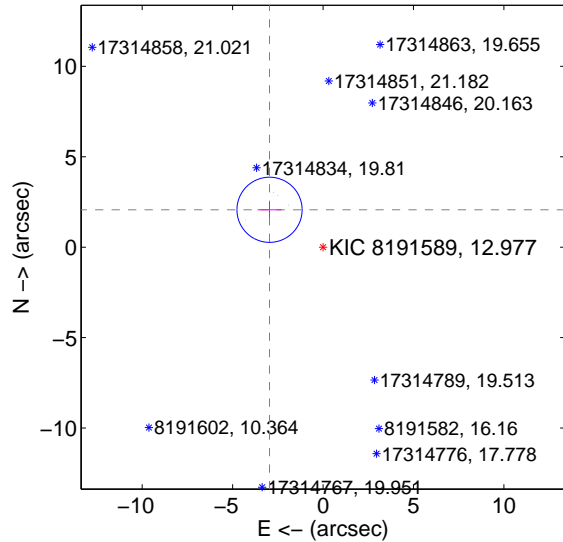
Supplemental centroid analysis for 008191589-01. Kepler magnitude: 12.98. Transit SNR 12.58

There are 7 quarters with good PRF difference image offsets

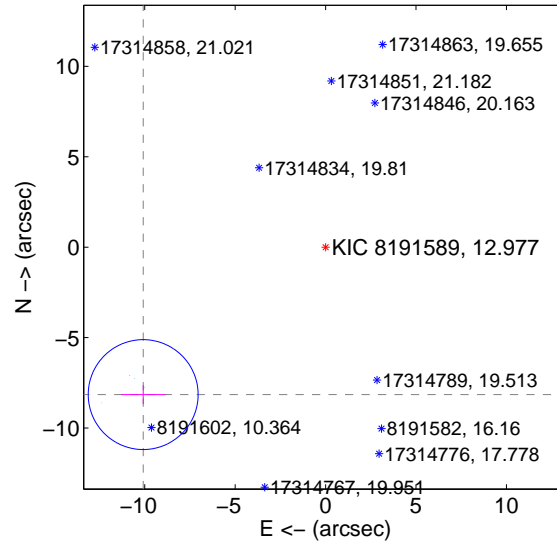
The OOT PRF centroid is offset from the target star catalog position by about 12.95 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.609 ± 0.600	6.01	2.958 ± 0.669	2.067 ± 0.428
PRF-fit source offset from KIC position	12.966 ± 1.013	12.80	10.084 ± 1.233	-8.150 ± 0.517
photometric centroid source offset	7.78 ± 1.12	6.93	5.75 ± 0.81	-5.24 ± 1.41

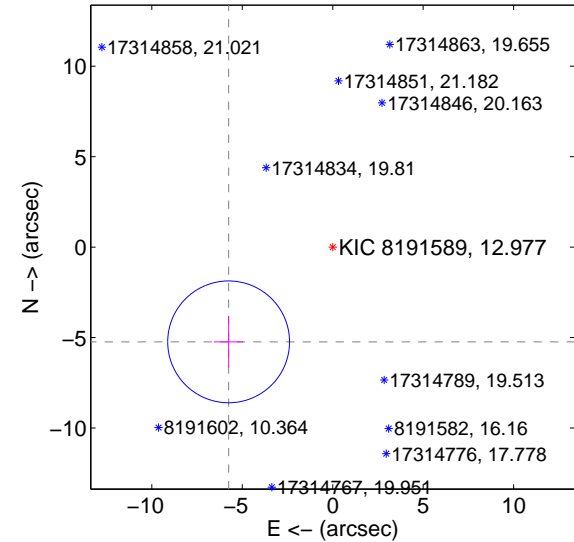
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

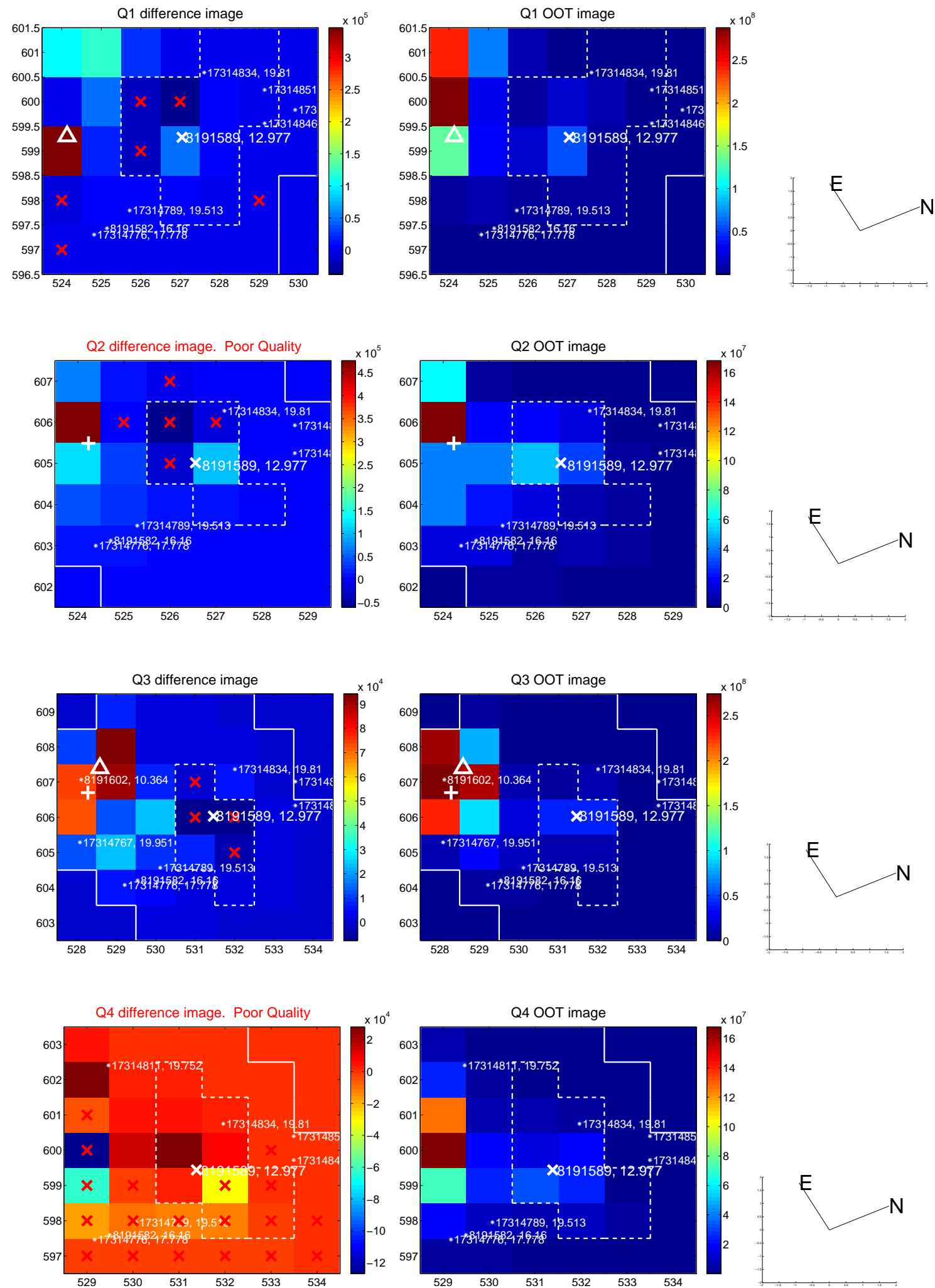


offset from photometric centroids

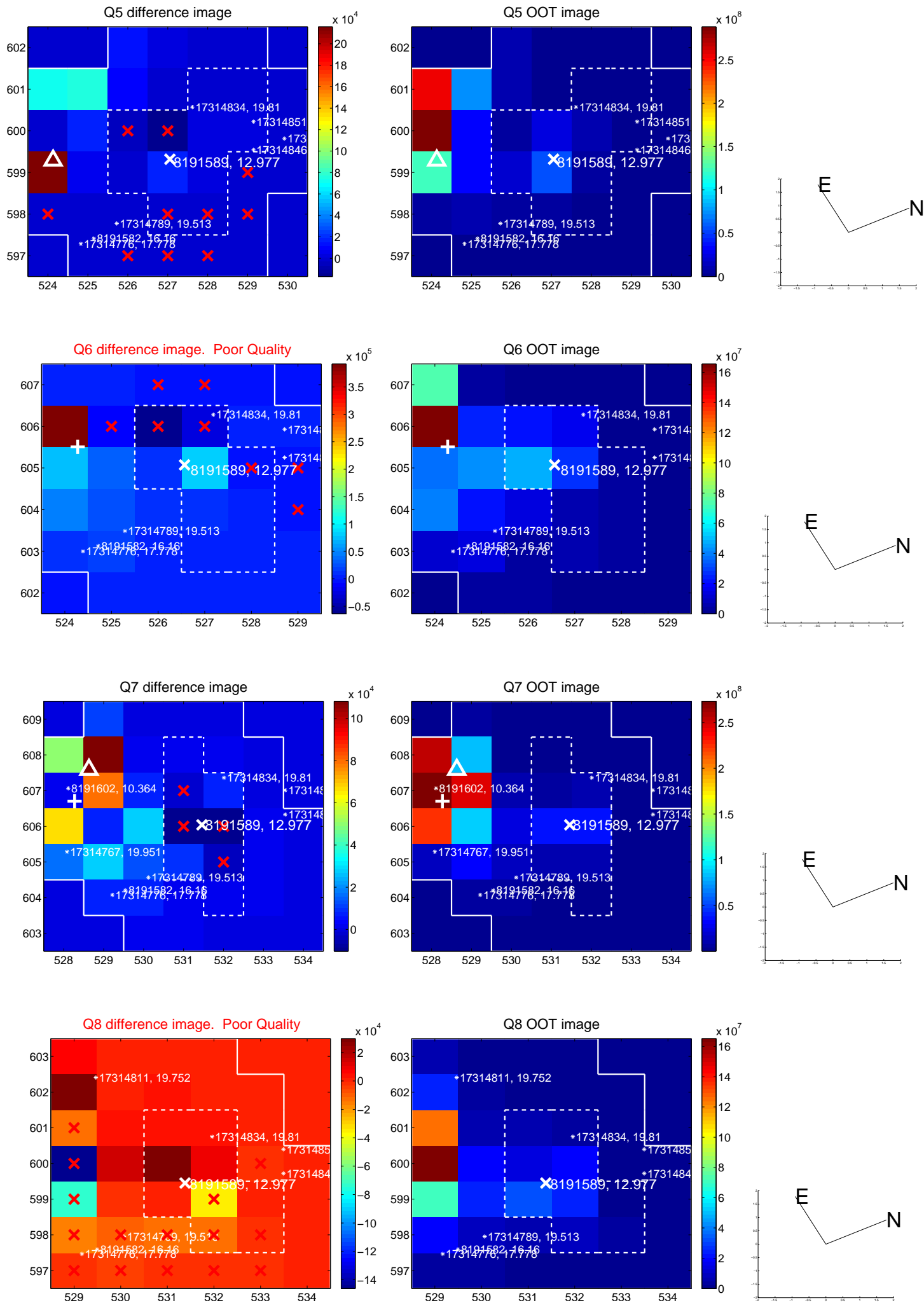


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

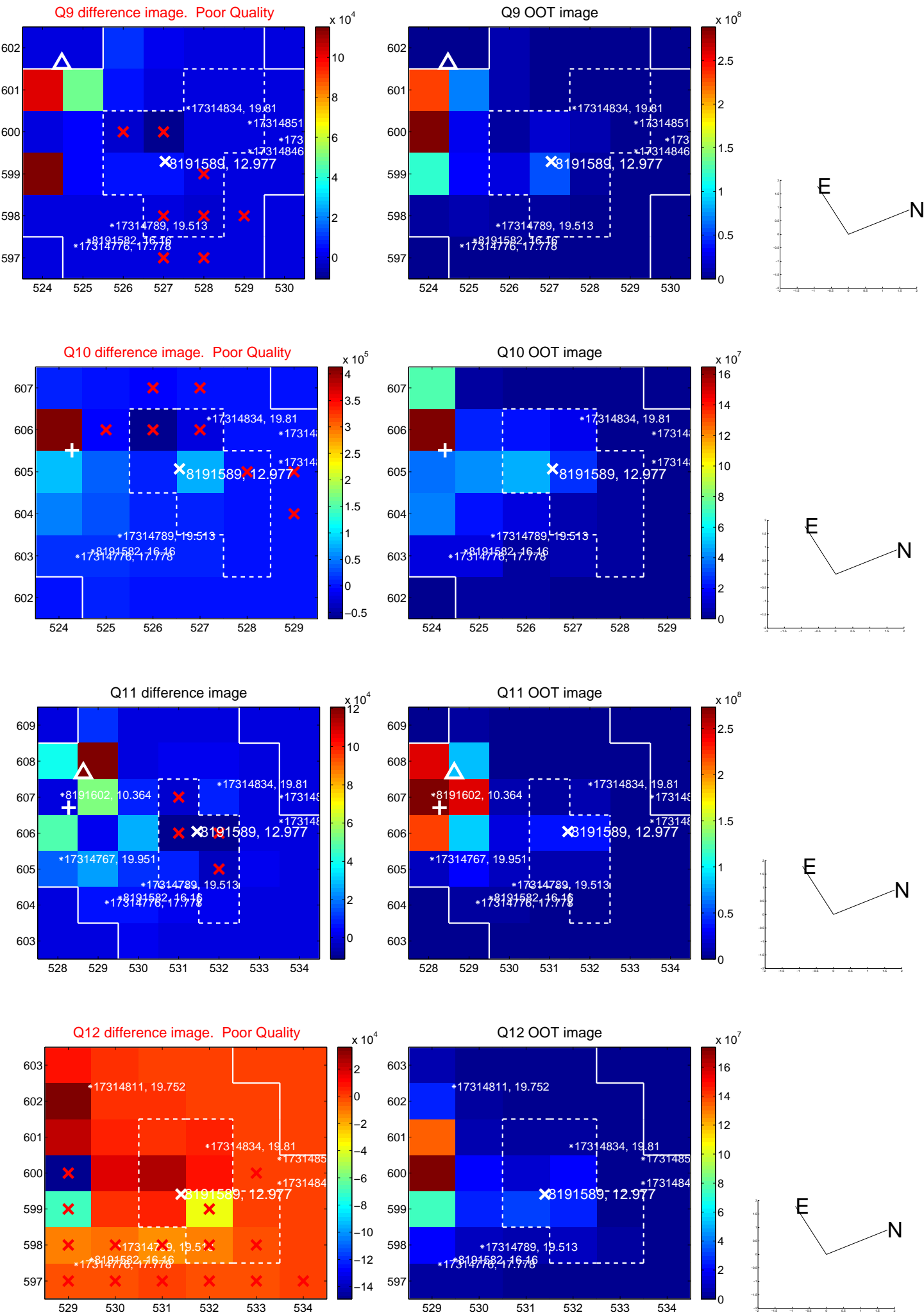
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



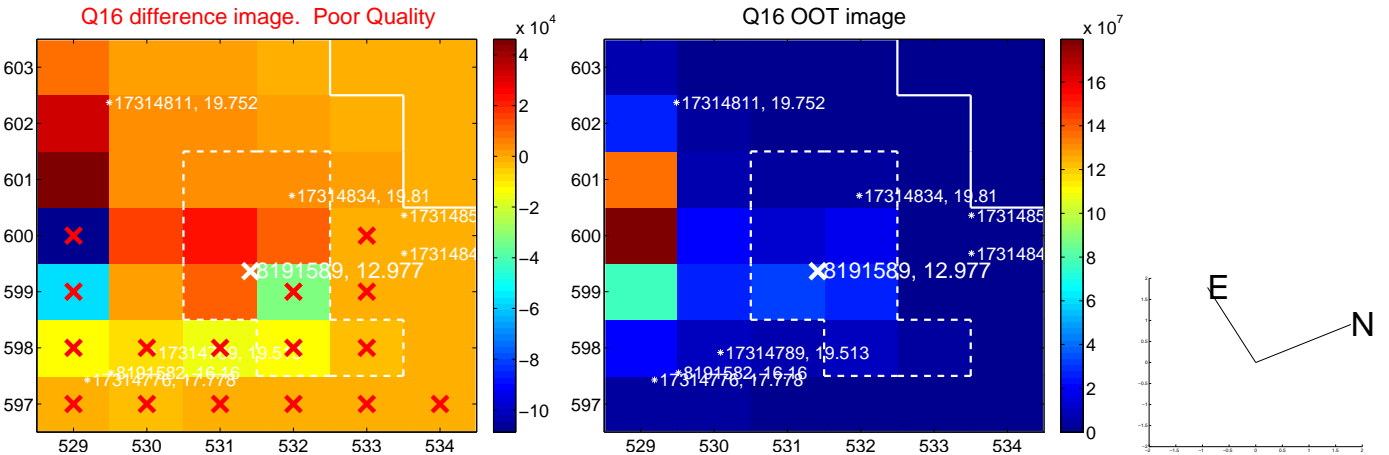
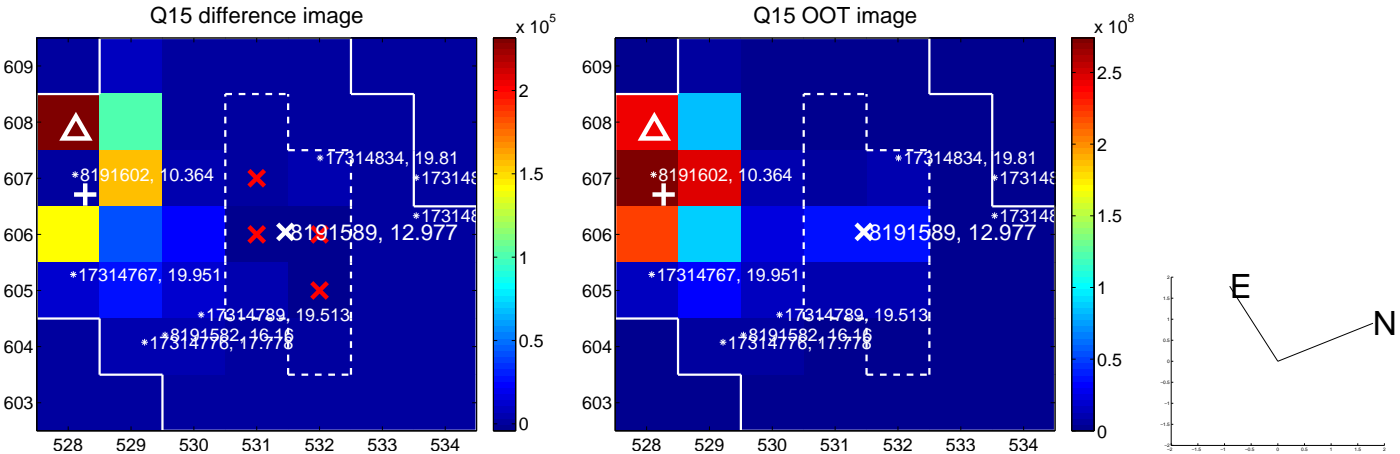
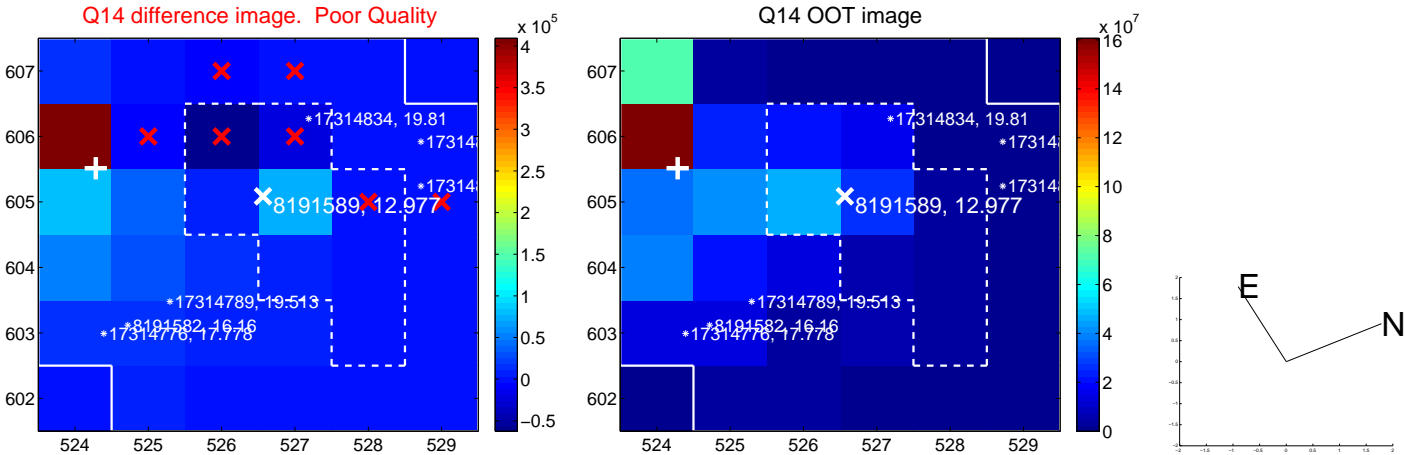
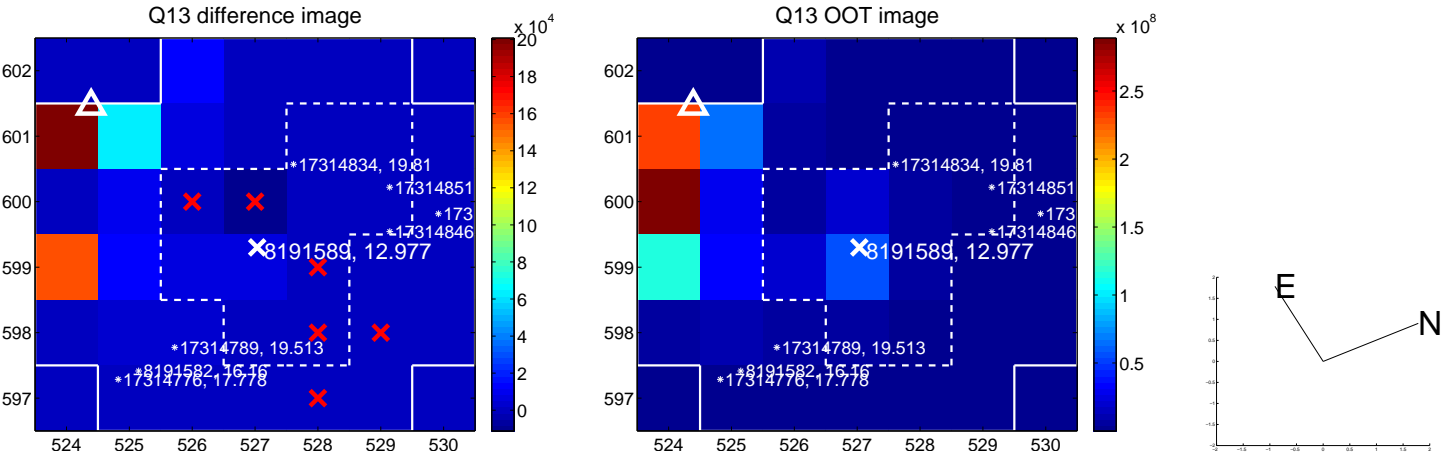
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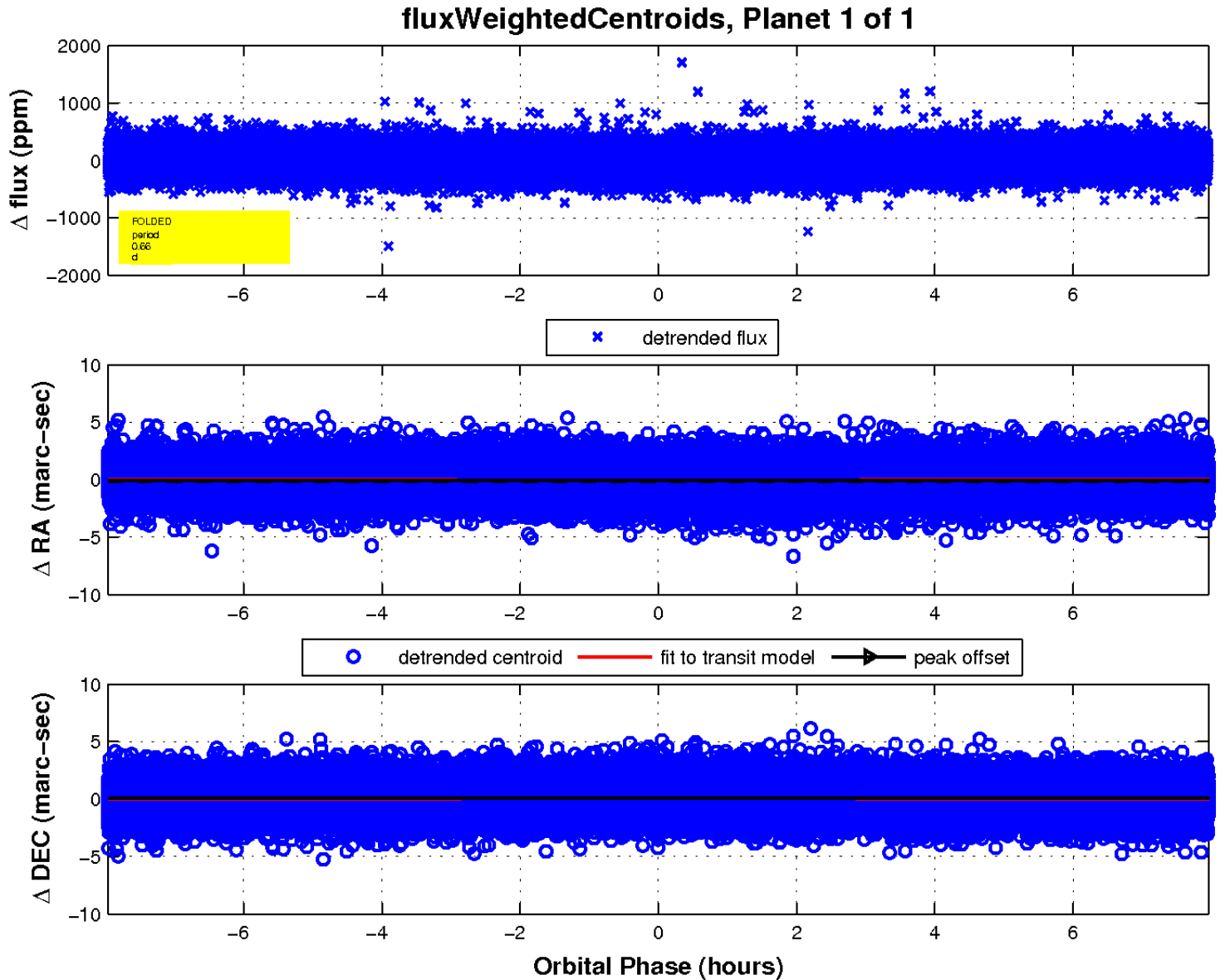
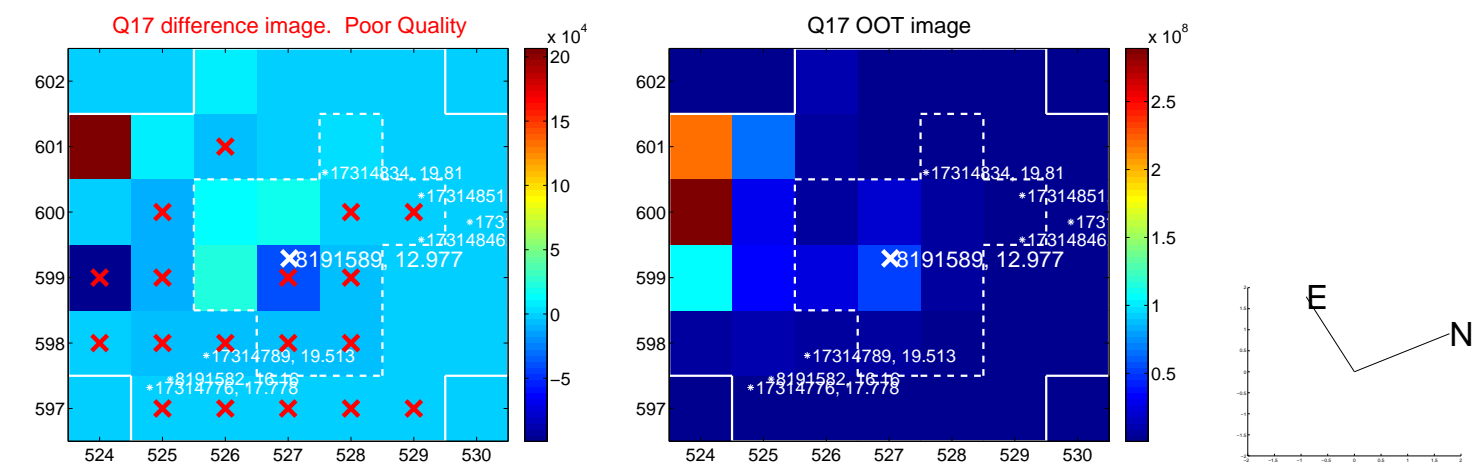
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UKIRT Image

